

| Flight-Testing Newton's Laws |       |               |  |
|------------------------------|-------|---------------|--|
| 2007 Mathematics             |       |               |  |
| State Frameworks             |       |               |  |
| Mississippi Mathematics      |       |               |  |
| Grades 8-9                   |       |               |  |
| Activity/Lesson              | State | Standards     |  |
| Session-10 (1-5)             | MS    | MA.8-9.TA.2.a | Given a literal equation, solve for a specified variable of degree one.  |
| Session-10 (1-5)             | MS    | MA.8-9.TA.2.b | Explain and illustrate how changes in one variable may result in a change in another variable.   |
| Session-10 (1-5)             | MS    | MA.8-9.TA.2.c | Solve and check multi-step equations and inequalities, including distributive property, variables on both sides, and rational coefficients.                          |
| Session-1 (1-17)             | MS    | MA.8-9.TA.2.b | Explain and illustrate how changes in one variable may result in a change in another variable.   |
| Session-1 (1-17)             | MS    | MA.8-9.TA.4.b | Explain and apply the appropriate formula to determine length, midpoint, and slope of a segment in a coordinate plane (i.e., distance formula, Pythagorean Theorem). |
| Session-2 (1-10)             | MS    | MA.8-9.TA.2.a | Given a literal equation, solve for a specified variable of degree one.  |
| Session-2 (1-10)             | MS    | MA.8-9.TA.2.c | Solve and check multi-step equations and inequalities, including distributive property, variables on both sides, and rational coefficients.                          |
| Session-2 (1-10)             | MS    | MA.8-9.TA.2.f | Write linear equations given slope and y-intercept or two points.  |
| Session-2 (1-10)             | MS    | MA.8-9.TA.4.b | Explain and apply the appropriate formula to determine length, midpoint, and slope of a segment in a coordinate plane (i.e., distance formula, Pythagorean Theorem). |
| Session-3 (1-6)              | MS    | MA.8-9.TA.2.a | Given a literal equation, solve for a specified variable of degree one.  |
| Session-4 (1-11)             | MS    | MA.8-9.TA.2.a | Given a literal equation, solve for a specified variable of degree one.  |
| Session-4 (1-11)             | MS    | MA.8-9.TA.2.c | Solve and check multi-step equations and inequalities, including distributive property, variables on both sides, and rational coefficients.                          |
| Session-4 (1-11)             | MS    | MA.8-9.TA.2.f | Write linear equations given slope and y-intercept or two points.  |
| Session-4 (1-11)             | MS    | MA.8-9.TA.4.b | Explain and apply the appropriate formula to determine length, midpoint, and slope of a segment in a coordinate plane (i.e., distance formula, Pythagorean Theorem). |
| Session-5 (1-6)              | MS    | MA.8-9.TA.2.a | Given a literal equation, solve for a specified variable of degree one.  |

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| Session-5 (1-6)                     | MS           | MA.8-9.TA.2.c    | Solve and check multi-step equations and inequalities, including distributive property, variables on both sides, and rational coefficients.                          |
| Session-5 (1-6)                     | MS           | MA.8-9.TA.4.b    | Explain and apply the appropriate formula to determine length, midpoint, and slope of a segment in a coordinate plane (i.e., distance formula, Pythagorean Theorem). |
| Session-6 ( 1-8)                    | MS           | MA.8-9.TA.2.a    | Given a literal equation, solve for a specified variable of degree one.  |
| Session-6 ( 1-8)                    | MS           | MA.8-9.TA.2.c    | Solve and check multi-step equations and inequalities, including distributive property, variables on both sides, and rational coefficients.                          |
| Session-6 ( 1-8)                    | MS           | MA.8-9.TA.4.a    | Solve real-world problems involving measurements (i.e., circumference, perimeter, area, volume, distance, temperature, etc.).  |
| Session-7 (1-5)                     | MS           | MA.8-9.TA.2.a    | Given a literal equation, solve for a specified variable of degree one.  |
| Session-7 (1-5)                     | MS           | MA.8-9.TA.2.c    | Solve and check multi-step equations and inequalities, including distributive property, variables on both sides, and rational coefficients.                          |
| Session-7 (1-5)                     | MS           | MA.8-9.TA.4.b    | Explain and apply the appropriate formula to determine length, midpoint, and slope of a segment in a coordinate plane (i.e., distance formula, Pythagorean Theorem). |
| Session-8 (1-9)                     | MS           | MA.8-9.TA.2.a    | Given a literal equation, solve for a specified variable of degree one.  |
| Session-8 (1-9)                     | MS           | MA.8-9.TA.2.j    | Apply ratios and use proportional reasoning to solve real-world algebraic problems.  |
| Session-8 (1-9)                     | MS           | MA.8-9.TA.4.b    | Explain and apply the appropriate formula to determine length, midpoint, and slope of a segment in a coordinate plane (i.e., distance formula, Pythagorean Theorem). |
| Session-9 (1-7)                     | MS           | MA.8-9.TA.2.a    | Given a literal equation, solve for a specified variable of degree one.  |
| Session-9 (1-7)                     | MS           | MA.8-9.TA.2.j    | Apply ratios and use proportional reasoning to solve real-world algebraic problems.  |
| Session-9 (1-7)                     | MS           | MA.8-9.TA.4.b    | Explain and apply the appropriate formula to determine length, midpoint, and slope of a segment in a coordinate plane (i.e., distance formula, Pythagorean Theorem). |
| <b>Flight-Testing Newton's Laws</b> |              |                  |  |
| <b>2007 Mathematics</b>             |              |                  |  |
| <b>State Frameworks</b>             |              |                  |  |
| <b>Mississippi Mathematics</b>      |              |                  |  |
| <b>Grades 8-10</b>                  |              |                  |  |
| <b>Activity/Lesson</b>              | <b>State</b> | <b>Standards</b> |  |

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| Session-10 (1-5) | MS | MA.8-10.AI.4.b | Explain and apply the appropriate formula to determine length, midpoint, and slope of a segment in a coordinate plane. (i.e., distance formula, Pythagorean Theorem). |
| Session-1 (1-17) | MS | MA.8-10.AI.2.a | Solve, check, and graph multi-step linear equations and inequalities in one variable, including rational coefficients in mathematical and real-world situations.      |
| Session-1 (1-17) | MS | MA.8-10.AI.4.a | Solve real-world problems involving formulas for perimeter, area, distance, and rate.   |
| Session-1 (1-17) | MS | MA.8-10.AI.4.b | Explain and apply the appropriate formula to determine length, midpoint, and slope of a segment in a coordinate plane. (i.e., distance formula, Pythagorean Theorem). |
| Session-2 (1-10) | MS | MA.8-10.AI.2.a | Solve, check, and graph multi-step linear equations and inequalities in one variable, including rational coefficients in mathematical and real-world situations.      |
| Session-2 (1-10) | MS | MA.8-10.AI.2.b | Solve and graph absolute value equations and inequalities in one variable.  |
| Session-2 (1-10) | MS | MA.8-10.AI.4.b | Explain and apply the appropriate formula to determine length, midpoint, and slope of a segment in a coordinate plane. (i.e., distance formula, Pythagorean Theorem). |
| Session-3 (1-6)  | MS | MA.8-10.AI.2.a | Solve, check, and graph multi-step linear equations and inequalities in one variable, including rational coefficients in mathematical and real-world situations.      |
| Session-4 (1-11) | MS | MA.8-10.AI.2.a | Solve, check, and graph multi-step linear equations and inequalities in one variable, including rational coefficients in mathematical and real-world situations.      |
| Session-4 (1-11) | MS | MA.8-10.AI.2.b | Solve and graph absolute value equations and inequalities in one variable.  |
| Session-4 (1-11) | MS | MA.8-10.AI.4.b | Explain and apply the appropriate formula to determine length, midpoint, and slope of a segment in a coordinate plane. (i.e., distance formula, Pythagorean Theorem). |
| Session-5 (1-6)  | MS | MA.8-10.AI.2.a | Solve, check, and graph multi-step linear equations and inequalities in one variable, including rational coefficients in mathematical and real-world situations.      |
| Session-5 (1-6)  | MS | MA.8-10.AI.4.b | Explain and apply the appropriate formula to determine length, midpoint, and slope of a segment in a coordinate plane. (i.e., distance formula, Pythagorean Theorem). |
| Session-6 ( 1-8) | MS | MA.8-10.AI.2.a | Solve, check, and graph multi-step linear equations and inequalities in one variable, including rational coefficients in mathematical and real-world situations.      |
| Session-6 ( 1-8) | MS | MA.8-10.AI.2.b | Solve and graph absolute value equations and inequalities in one variable.  |

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| Session-6 ( 1-8)                    | MS           | MA.8-10.AI.4.b   | Explain and apply the appropriate formula to determine length, midpoint, and slope of a segment in a coordinate plane. (i.e., distance formula, Pythagorean Theorem). |
| Session-7 (1-5)                     | MS           | MA.8-10.AI.2.a   | Solve, check, and graph multi-step linear equations and inequalities in one variable, including rational coefficients in mathematical and real-world situations.      |
| Session-7 (1-5)                     | MS           | MA.8-10.AI.4.b   | Explain and apply the appropriate formula to determine length, midpoint, and slope of a segment in a coordinate plane. (i.e., distance formula, Pythagorean Theorem). |
| Session-8 (1-9)                     | MS           | MA.8-10.AI.2.a   | Solve, check, and graph multi-step linear equations and inequalities in one variable, including rational coefficients in mathematical and real-world situations.      |
| Session-8 (1-9)                     | MS           | MA.8-10.AI.4.b   | Explain and apply the appropriate formula to determine length, midpoint, and slope of a segment in a coordinate plane. (i.e., distance formula, Pythagorean Theorem). |
| Session-9 (1-7)                     | MS           | MA.8-10.AI.2.a   | Solve, check, and graph multi-step linear equations and inequalities in one variable, including rational coefficients in mathematical and real-world situations.      |
| Session-9 (1-7)                     | MS           | MA.8-10.AI.4.b   | Explain and apply the appropriate formula to determine length, midpoint, and slope of a segment in a coordinate plane. (i.e., distance formula, Pythagorean Theorem). |
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| <b>Flight-Testing Newton's Laws</b> |              |                  |   |
| <b>2007 Mathematics</b>             |              |                  |   |
| <b>State Frameworks</b>             |              |                  |   |
| <b>Mississippi Mathematics</b>      |              |                  |   |
| <b>Grades 9-12 (Trigonometry)</b>   |              |                  |   |
| <b>Activity/Lesson</b>              | <b>State</b> | <b>Standards</b> |   |
| Session-10 (1-5)                    | MS           | MA.9-12.T.3.d    | Solve trigonometric equations in real-world situations or mathematical settings.  |
| Session-10 (1-5)                    | MS           | MA.9-12.T.4.a    | Use the unit circle to solve real-world applications and problems in mathematical settings.   |
| Session-1 (1-17)                    | MS           | MA.9-12.T.3.d    | Solve trigonometric equations in real-world situations or mathematical settings.  |
| Session-1 (1-17)                    | MS           | MA.9-12.T.4.a    | Use the unit circle to solve real-world applications and problems in mathematical settings.   |
| Session-2 (1-10)                    | MS           | MA.9-12.T.3.d    | Solve trigonometric equations in real-world situations or mathematical settings.  |
| Session-2 (1-10)                    | MS           | MA.9-12.T.4.a    | Use the unit circle to solve real-world applications and problems in mathematical settings.   |
| Session-3 (1-6)                     | MS           | MA.9-12.T.3.d    | Solve trigonometric equations in real-world situations or mathematical settings.  |

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| Session-3 (1-6)  | MS | MA.9-12.T.4.a | Use the unit circle to solve real-world applications and problems in mathematical settings. |
| Session-4 (1-11) | MS | MA.9-12.T.3.d | Solve trigonometric equations in real-world situations or mathematical settings.            |
| Session-4 (1-11) | MS | MA.9-12.T.4.a | Use the unit circle to solve real-world applications and problems in mathematical settings. |
| Session-5 (1-6)  | MS | MA.9-12.T.3.d | Solve trigonometric equations in real-world situations or mathematical settings.            |
| Session-5 (1-6)  | MS | MA.9-12.T.4.a | Use the unit circle to solve real-world applications and problems in mathematical settings. |
| Session-6 ( 1-8) | MS | MA.9-12.T.3.d | Solve trigonometric equations in real-world situations or mathematical settings.            |
| Session-6 ( 1-8) | MS | MA.9-12.T.4.a | Use the unit circle to solve real-world applications and problems in mathematical settings. |
| Session-7 (1-5)  | MS | MA.9-12.T.3.d | Solve trigonometric equations in real-world situations or mathematical settings.            |
| Session-7 (1-5)  | MS | MA.9-12.T.4.a | Use the unit circle to solve real-world applications and problems in mathematical settings. |
| Session-8 (1-9)  | MS | MA.9-12.T.3.d | Solve trigonometric equations in real-world situations or mathematical settings.            |
| Session-8 (1-9)  | MS | MA.9-12.T.4.a | Use the unit circle to solve real-world applications and problems in mathematical settings. |
| Session-9 (1-7)  | MS | MA.9-12.T.3.d | Solve trigonometric equations in real-world situations or mathematical settings.            |
| Session-9 (1-7)  | MS | MA.9-12.T.4.a | Use the unit circle to solve real-world applications and problems in mathematical settings. |